MODIFIED PTO/SB/08 A & B (08-03)

Substitute for Form 1449 A & B/PTO	Complete if Known		
	Application Number	10/539,373	
INFORMATION DISCLOSURE	Confirmation Number	4607	
STATEMENT BY APPLICANT	Filing Date	June 16, 2005	
	First Named Inventor	Yoshiyuki FUKUMOTO	
(use as many sheets as necessary)	Art Unit	2627	
	Examiner Name	Allen J. HEINZ	
Sheet 1 of 1	Attorney Docket Number	Q88645	

	U.S. PATENT DOCUMENTS								
Examiner	Cite	Document N	umber	Bublication Date					
Loitials*	No.1	Number	Kind Code ¹ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document				
AH		US 7,205,564	B2	04-17-2007	Kajiyama				
AL		US 7,215,566	B2	05-08-2007	Kanegae				
X 2		US 2003/0179601	Al	09-25-2003	Scyyedy et al.				
M		US 2004/0156232	Al	08-12-2004	Saito et al.				
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	FOREIGN PATENT DOCUMENTS								
Examiner	Cite	Fore	eign Patent Docu	ment	Publication Date	Name of Patentee or			
Initials*	No.	Country Code ³	Number ⁴	Kind Code ³ (if known)	MM-DD-YYYY	Applicant of Cited Document	Translation ⁶		
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NON PATENT LITERATURE DOCUMENTS							
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.	Translation ⁴				

Examiner Signature	A. Heinz	Date Considered	1/18/08	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kind Codes of USPTO Patent Documents at www.uspto.gov, MPEP 901.04 or follow the hyperlink from the title of the document to the intranet. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST. 3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ³Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to indicate here if English language Translation is attached.

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Examiner Initials*		Document	Number	Publication Date				
	Cite No.1	Number	Kind Code ¹ (if known)	MM-DD-YYYY	Name of Patentee or Applicant of Cited Document			
		US						
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Initials*	No.	Country -Code ³	Number ⁴	Kind Code ⁵ (if known)	MM-DD-YYYY	Applicant of Cited Document	T austation
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Examiner Signature	A. Heinz	Date Considered	18/08	
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[Page 1 of 1]

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					Application Number	10/539,373	
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	STATEN	MENT BY	APPLIC	ANT W	Filing Date	June 16, 2005	
				•	First Named Inventor	Yoshiyuki FUKUMOTO	
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			U.S. 1	PATENT DOCUME	ENTS
Examiner Initials*	Clia	Document 1	Number	Publication Date	
	Clie No.1	Number	Kind Code ² (if known)	MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		US			
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Examiner Initials*	Cite No.1	Foreign Patent Document			Publication Date	Name of Patentee or	Translation*
		Country Code ³	· Number ⁴	Kind Code ¹ (if known)	MM-DD-YYYY	Applicant of Cited Document	1 Lausiation
BH 1		JР	10-65232	Α	03-06-1998		
		JP	2002-74627	Α	-03-15-2002		
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		NON PATENT LITERATURE DOCUMENTS	
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SH		K. Matsuda et al.; "Reduced magnetoresistance in magnetic tunnel junctions caused by geometrical artifacts"; Applied Physics Letters; Vol. 77, No. 19; November 6, 2000; pages 3060-3062.	
At		J. S. Moodera et al.; "Geometrically enhanced magnetoresistance in ferromagnet-insulator-ferromagnet tunnel junctions"; Applied Physics Letters; Vol. 69, No. 5; July 29, 1996; pages 708-710.	
All		S. Ohnuma et al.; "Soft Magnetic Films with High Electrical Resistivity"; Journal of the Magnetics Society of Japan; Vol. 19, No. 1; 1995; pages 19-25; with English Abstract.	
			

Examiner Signature	A. Heinz	Date Considered	11/21/06

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Substitute for Form 1449 A & B/PTO	Complete if Known
Substitute for Portal 1449 K & Di 10	Application Number Not yet assigned
INFORMATION DISCLOSURE	Confirmation Number Not yet assigned
STATEMENT BY APPLICANT	Filing Date June 16, 2005
	First Named Inventor Yoshiyuki FUKUMOTO
(use as many sheets as necessary)	Art Unit Not yet assigned
	Examiner Name Not yet assigned
Sheet 1 of 2	Attorney Docket Number Q88645

		_	U.S.	PATENT DOCU	JMENTS
		Document Nu	mber .		
Examiner Initials*	Cite No.1	Number	Kind Code ³ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
A71		US 2002/0044396	Al	04-18-2002	Amano.et al.
7		US 2004/0145850	Al	07-29-2004	Fukumoto et al.
		US			

Examiner	Cite	Fo	reign Patent Docum	rent	Publication Date	Name of Patentce or	Translation ⁴
Initials*	No.1	Country Code	Number ⁴	Kind Code ⁵ (if known)	MM-DD-YYYY	Applicant of Cited Document	1/2012(10)
AA		JP	2000-20922	Α	01-21-2000		
		EP	1033764	A2	09-06-2000		
/		JP	62-132211	Α	06-15-1987		
		JP	3-268216	A	11-28-1991		
		EP	1202357	A2	05-02-2002		
/		JP	2002-329903	Α	11-15-2002		
		JP	2003-273420	Α	09-26-2003		_
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NON PATENT LITERATURE DOCUMENTS							
Examiner Initials*	Cite No.1	Include dame of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), data, page(s), volume-itsus number(s), publisher, city, and/or country where published.	Translation				
ALL		S. Cardoso et al., Influence of Ta antidiffusion barriers on the thermal stability of tunnel junctions, Applied Physics Letters (Vol. 78, May 7, 2001, pp. 2911-2913)(the second conventional example).					
MAL		J.J. Sun et al., Low resistance and high terminal stability of spin-dependent tunnel junctions with synthetic antiferromagnetic CoFe/Ru/CoFe pinned layers, Applied Physics Letters (Vol. 76, April 24, 2000, pp. 2424-2426).					
A		S. Cardoso et al., Influence of Ta antidiffusion barriers on the thermal stability of tunnel junctions, Applied Physics Letters (Vol. 76, June 19, 2000, pp. 3792-3794).					
K		T. Ochiai et al., Improved Thermal Stability of Ferromagnetic Tunnel Junctions With a CoFe/CoFeOx/CoFe Pinned Layer, IEEE Transactions on Magnetics, (Vol. 39, September, 2003, pp. 2797-2799).					

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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First Named Inventor	Yoshiyuki FUKUMOTO				
Art Unit	Not yet assigned				
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			U.S.	PATENT DOCU	JMENTS
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AN		US 2002/0044396	A1	04-18-2002	Amano et al.
		US 2004/0145850	A1.	07-29-2004	Fukumoto et al.
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Examiner	Cite	Fo	reign Patent Docum	rent	Publication Date	Name of Patentee or	Translation ⁴
Initials*	Na	Country	Number	Kind Code (if brown)	MM-DD-YYYY	Applicant of Cited Document	1 / 2 a La tion
1		JP	2000-20922	A	01-21-2000	•	
		EP	1033764	A2	09-06-2000		
		ЛP	62-132211	Α	06-15-1987		
		JP ·	3-268216	A	11-28-1991		
		EP	1202357	A2 .	05-02-2002		
		JP	2002-329903	A	11-15-2002		
		JР	2003-273420	A	09-26-2003		
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		NON PATENT LITERATURE DOCUMENTS	
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